

**ABSTRACT OF THE DISCLOSURE**

A direction and speed control device includes a casing, a sensing unit, and a magnet assembly. The sensing unit includes a magnetic sensor. The magnet assembly includes a pivot axle that is mounted rotatably on the casing and that has a magnet carrying portion extending into the casing, and a driven portion extending from the magnet carrying portion and disposed outwardly of the casing, and further includes first and second magnets mounted on the magnet carrying portion and disposed on opposite sides of the magnetic sensor. The driven portion is operable to rotate the pivot axle relative to the casing so as to displace the first and second magnets relative to the magnetic sensor. The sensing unit generates a control output for controlling direction and speed of a motor vehicle in accordance with the displacement of the first and second magnets relative to the magnetic sensor.